2007-08 Idaho 6th Grade Direct Mathematics Assessment

649

STUDENTS DO NOT WRITE IN THIS AREA

FINAL

ROUND 1   ROUND 2

T:___ R:___   T:___ R:___

ow you solved the problems
show how you set up the math

1. The 6th grade students at Grand View Elementary decided to sell the following it
   stand during the Little League Baseball games.

Quantity	Type of Product	Cost
2	Box of Assorted Chips	$9.95 each box
1	Case of Root Beer	$7.90 each case
2	Box of Candy Bars	$10.98 each box
1	Container of Licorice (80 pieces)	$9.60 each container
1	Case of Spring Water	$4.95 each case

a) What was the total cost of the products they had available to sell at the Little League games? *Show or explain your work.*

> **Effective communication and well-defined structure.**

$9.95
$9.95
$7.90
$10.98
$10.98

$49.76
$9.60
+4.95
$64.31

$64.31

The total cost is $64.31.

b) How much more did the case of root beer cost compared to the case of spring water? *Show or explain your work.*

① Root beer – $7.90
   Spring Water – $4.95

② $7.90
   $4.95
   $2.05

③ Root beer is $2.05 more then Spring water.

> **Occasional computational errors.**

c) If 12 students share one container of licorice, how many pieces of licorice would each student receive? *Show or explain your work.*

> **Adequate and adaptable application of basic skills.**

$80 ÷ 12 = 6.6$

about $6\frac{1}{2}$

Each student would get about $6\frac{1}{2}$ pieces of licorice.

d) They sold 1/8 of the water at the first game and 3/8 of the water at the second game. What fraction of the water did they sell at the first two games? *Show or explain your work.*

$1/8 + 3/8 = 4/8 = 1/2$

They sold $\frac{1}{2}$ of the water at the first 2 games.

> Read problems 2, 3, 4, and 5 on this and the next two pages. Select three problems to solve and answer ALL of the parts of the three problems.
> Cross out the one problem that you do not choose to answer.

2. Todd is building a pyramid with pop cans. Continue the pattern started below by drawing figures 4 and 5. *Show or explain your work.*
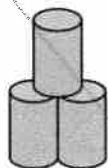
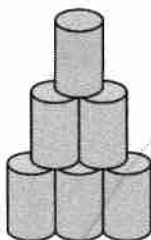   a) Figure 1   Figure 2   Figure 3   Figure 4   Figure 5

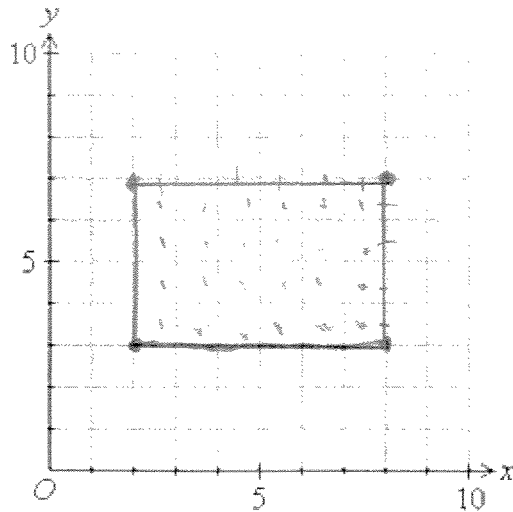   b) Complete the table below. *Show or explain your work.*

Figure	Total Number of Cans
1	1
2	3
3	_____
4	_____
_____	15
6	_____

   c) How many cans would be in Figure 8? *Show or explain your work.*

   d) Explain the pattern used to complete the table.

3. Use the following grid to answer problem a, b, and c.   **1 unit = 1 foot**

a) Plot the following points. Connect your points in order and identify the polygon. (2, 3), (2, 7), (8, 7), and (8, 3).

It is a square/quadrellaternel.

> Effective use of symbols and communication skills. Occasional surface errors.

b) What is the perimeter of the polygon you formed? *Show or explain how your work.*

6+4 =10
6+4 =10
10+10=20
2L+2W=P
The Perimeter is 20 half square centimeters

c) What is the area of the polygon you formed? *Show or explain how your work.*

6×4=24
6×4=24
L×W=A
The area is 24 half square centimeters

4. Kara baby-sits her neighbor's baby boy four days a week for 1 hour and 30 minutes each day.

a) If she begins baby-sitting at 3:45 P.M. what time does she finish baby-sitting each day? *Show or explain your work.*

3:45pm
+ 1:30
5:15 PM

> Effective problem solving strategies.

b) What is the total time she baby-sits during a week? *Show or explain your work.*

1:30
1:30
1:30
+ 1:30

6:00 – She baby sits for 6hrs a week

c) Kara baby-sat one Saturday. She started at 9:20 A.M. and finished at 3:40 P.M. How long did she baby-sit? *Show or explain your work.*

9:20AM
+ 6:20
9:40 AM

9:40AM
+ 6:00
3:40 PM

6:00
+ 6:20
6:20

She baby sat for 6hr 20min.

5. Use the information in Mrs. Smith's Grade Book to answer the following questions.

<u>Mrs. Smith's Grade Book</u>

Student	Test 1	Test 2	Test 3	Test 4	Test 5
One	90	100	92	87	96
Two	100	90	87	88	85
Three	86	88	85	83	83
Four	83	86	86	75	85

Find the name of each student by using the following clues.

a) The **mode** of John's scores is 86. Which student is John? *Show or explain your work.*

#4 - 83, 86, 86, 75, 85

John is student number 4.

> Understanding of situations.

b) The **median** of Maria's scores is 88. Which student is Maria? *Show or explain your work.*

#3 - 83, 83, 85, 86, 88

#2 - 85, 87, 88, 90, 100

Maria is student number 2.

> Proficient application of basic skills.

c) Joe's scores have a 13-point **range**. Which student is Joe? *Show or explain your work.*

#1 - 87, 90, 92, 96, 100

= 13

Joe is student number 1.